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| 10/675,639 | 09/29/2003 | Pascal Adjakple | 1-2-0400.1US | 6061 |

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VOLPE AND KOENIG, P.C.
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| EXAMINER |
|---|
| CASCA, FRED A |

| ART UNIT | PAPER NUMBER |
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| 2617 | |

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

| | Application No. | Applicant(s) |
|---|---|---|
| **Office Action Summary** | 10/675,639 | ADJAKPLE ET AL. |
| | Examiner | Art Unit | |
| | Fred A. Casca | 2617 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☐ Responsive to communication(s) filed on <u>11 October 2007</u>.

2a)☐ This action is **FINAL**.  2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) <u>1-33</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-3,12-17 and 26-33</u> is/are rejected.

7)☒ Claim(s) <u>4-11 and 18-25</u> is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All  b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

## DETAILED ACTION

1.      This action is in response to applicant's amendment filed on October 11, 2007. Claims 1-

33 are still pending in the present application.

### *Claim Objections*

2.      Applicant's amendments and arguments with respect to objected claims 16-29 are

persuasive. Therefore the objection of claims 16-29 is withdrawn.

### *Claim Rejections - 35 USC § 103*

3.      The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4.      Claims 1-3, 15-17, and 30-33 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Agrawal (US Patent No. 6,748,234 B1) in view of Feuerstraeter (US Pub. No.

2003/0058894 A1).

        Referring to claim 1, Agrawal discloses in a wireless communication system wherein

wireless communications between communication stations (abstract) included the transmission

of a composite channel on which a plurality of channels are multiplexed (col. 2, lines 1-4,

composite channel", "transport channels"), wherein an error rate measurement is performed on

received signals on a reference channel selected from the plurality of multiplexed channels for

use in selectively controlling transmission of the composite channel (col. 2, lines 24-35, "an error

detection"), the method comprising;

monitoring the channel based on data content criteria (col. 2, lines 13-35, "an error

detection") to determine an ON state when the data content criteria is met (col. 2, lines 1-13,

"incrementing the power indicator of each of the plurality of transport channels without a

transmission error") and an OFF state when the data content criteria is not met ("decrementing

the power indicator of each of the plurality of transport channels having a transmission error").


Agrawal does not specifically disclose selecting a channel from the plurality of

multiplexed channels as the reference channel initially used for error rate measurement,

monitoring the reference channel based on data content criteria, and selecting a different channel

from the plurality of multiplexed channels as the reference channel when monitoring of the

reference channel reflects an OFF state, in the format claimed by applicant.


Feuerstraeter discloses selecting a channel from the plurality of channels as the reference

channel initially used for error rate measurement, monitoring the reference channel based on data

content criteria, and selecting a different channel from the plurality of multiplexed channels as

the reference channel when monitoring of the reference channel reflects an OFF state (Figures 4,

6A-7 and paragraph 47, "data rate detection unit 420 detects the reception of an incoming data

stream and determines the data rate", "frequency selector unit 435 selects one of teh plurality of

frequencies to be used  as a reference frequency", "If no lock is achieved, a different reference

frequency may be selected and tried").

It would have been obvious to one of the ordinary skills in the art at the time of invention to modify the method of Agrawal as claimed by incorporating the teachings of Feuerstraeter, for the purpose of efficient use of communication resources.

Referring to claim 2, the combinations of Agrawal/Feuerstraeter disclose the method of claim 1 and further disclose the channels are transport channels (TrCHs) and reference channel is a reference transport channel (RTrCH), each TrCH has a transport time interval (TTI) of a given size of which a largest TTI size is an integer multiple, the TRCHs are multiplexed on a coded composite transport channel (CCTrCH), a block error rate measurement is performed on the RTrCH, and monitoring of the RTrCH is performed at a time interval corresponding to the TTI size of the RTrCH (Agrawal, col. 3, lines 1-22, 43-52, col. 4, lines 5-32, col. 5, lines 50-62, and col. 2, lines 13-22, note that each TrCH inherently has a transport time interval (TTI) of a given size of which a largest TTI size is an integer multiple).

Referring to 3, the combinations of Agrawal/Feuerstraeter disclose the method of claim 2, and further disclose the TrCHs each have a block error rate (BLER) requirement and a TrCH having a least restrictive BLER requirement is selected as the RTrCH initially used for error rate measurement (Agrawal, col. 3, lines 1-22, 43-52, col. 4, lines 5-32, col. 5, lines 50-62, and col. 2, lines 13-22).

Referring to claim 15, claim 15 defines a receiver for a wireless communication station reciting features analogous to the features of the method of claim 1 (as rejected above). Thus, the combinations of Agrawal/Feuerstraeter disclose all elements of claims 15 (please see the rejection of claim 1 above).

Referring to claim 16, claim 16 defines a receiver for a wireless communication station reciting features analogous to the features of the method of claim 2 (as rejected above). Thus, the combinations of Agrawal/Feuerstraeter disclose all elements of claims 16 (please see the rejection of claim 2 above).

Referring to claim 17, claim 17 defines a receiver for a wireless communication station reciting features analogous to the features of the method of claim 3 (as rejected above). Thus, the combinations of Agrawal/Feuerstraeter disclose all elements of claims 17 (please see the rejection of claim 3 above).

Referring to claims 30 and 31, claims 31 and 31 define a base station and a transmit/receive unit for 3GPP system reciting features analogous to the features of the method of claim 1, Thus, the combinations of Agrawal/Feuerstraeter disclose all elements of claims 30-31 (please see the rejection of claim 1 above and note that the exemplary embodiment of system 10 of Agrawal is based on a 3GPP (WCDMA) system).

Referring to claims 32 and 33, claims 32 and 33 define a base station and a transmit/receive unit reciting features analogous to the features of the receiver of claim 15. Thus, the combinations of Agrawal/Feuerstraeter disclose all elements of claims 32 and 33 (please see the rejection of claim 15 above).

5.      Claims 12-14 and 26-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Agrawal (US Patent No. 6,748,234 B1), in view of Feuerstraeter (US Pub. No. 2003/0058894

A1) and further in view of well known prior art (MPEP 2144.03).


        Referring to claim 12, the combinations of Agrawal/Feuerstraeter disclose the method of

claim 2.

        The combinations of Agrawal/Feuerstraeter do not specifically disclose monitoring of the

RTrCH is performed only upon data detection on any TrCH.

        The examiner takes official notice of the fact that performing of monitoring a channel to

be based on detecting data on a channel is well known in the art.  One example of such concept

is practiced in CSMA random access approach (please see book titled "Data and Computer

Communication" by William Stallings).

        It would have been obvious to one of the ordinary skills in the art at the time of invention

to modify the method of Agrawal/Feuerstraeter by incorporating the teachings of prior art in such

way to provide monitoring of the RTrCH to be performed only upon data detection on any

TrCH, for the purpose of providing an efficient transmission of the composite channels.


        Referring to claim 13, the combinations of Agrawal/Feuerstraeter disclose the method of

claim 2.  The combinations of Agrawal/Feuerstraeter does not specifically disclose determining

when RTrCH is in an OFF state includes determining that data was not received on the RTrCH

for a predetermined number of consecutive TTIs of the RTrCH.

The examiner takes official notice of the fact that determining of a channel's off and on states based on detecting data on the channel during a predetermined period of time is well known in the art.

It would have been obvious to one of the ordinary skills in the art at the time of invention to modify the method Agrawal/Feuerstraeter by incorporating the teachings of well-known art and consequently providing the method of Agrawal/Briere to determine Off state based on data not received on the RTrCH for a predetermined number of consecutive TTIs of the RTrCH, for the purpose of providing an efficient method channel state detection.


Referring to claim 14, the combinations of Agrawal/Feuerstraeter disclose the method of claim 2. The combinations of Agrawal/Feuerstraeter does not specifically disclose determining when RTrCH is in an ON state includes determining that data was received on the RTrCH in at least one of a predetermined number of TTIs of the RTrCH.

The examiner takes official notice of the fact that determining of a channel's off and on states based on detecting data on the channel during a predetermined period of time is well known in the art.

It would have been obvious to one of the ordinary skills in the art at the time of invention to modify the method Agrawal/Feuerstraeter by incorporating the teachings of well-known art and consequently providing the method of Agrawal/Briere in determining an ON state by determining data reception on the RTrCH in at least one of a predetermined number of TTIs of the RTrCH, for the purpose of providing an efficient method channel state detection.

Referring to claim 26, the combinations of Agrawal/Feuerstraeter disclose the receiver of claim 16. The combinations of Agrawal/Feuerstraeter do not specifically disclose monitoring circuitry is configured such that monitoring of the RTrCH is performed no less than once during each time interval corresponding to the TTI size of the RTrCH.

The examiner takes official notice of the fact that monitoring of a channel not less than once (more than once) during a time period is well known in the art. An implementation of such monitoring is found in CSMA random access method.

Thus, It would have been obvious to one of the ordinary skills in the art at the time of invention to modify the receiver of Agrawal/Feuerstraeter by incorporating the teachings of well-known art and consequently providing monitoring of a channel to be performed no less than once during each time interval corresponding to the TTI size of the RTrCH, for the purpose of providing an efficient method channel state detection.

Referring to claim 27, claim 27 defines a receiver for a wireless communication station reciting features analogous to the features of the method of claim 13 (as rejected above). Thus, the combinations of Agrawal/Feuerstraeter/well-known-art disclose all elements of claims 27 (please see the rejection of claim 13 above).

Referring to claim 28, claim 28 defines a receiver for a wireless communication station reciting features analogous to the features of the method of claim 14 (as rejected above). Thus, the combinations of Agrawal/Feuerstraeter/well-known-art disclose all elements of claims 28 (please see the rejection of claim 14 above).

Referring to claim 29, claim 29 defines a receiver for a wireless communication station

reciting features analogous to the features of the method of claim 12 (as rejected above). Thus,

the combinations of Agrawal/Feuerstraeter/well-known-art disclose all elements of claims 29

(please see the rejection of claim 12 above).

## *Allowable Subject Matter*

6.      Claim 4-11 and 18-25 are objected to as being dependent upon a rejected base claim, but

would be allowable if rewritten in independent form including all of the limitations of the base

claim and any intervening claims.

## *Response to Arguments*

7.      Applicant's arguments with respect to claims 1-33 have been considered but are moot in

view of the new ground(s) of rejection.

## *Conclusion*

8.      Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Fred A. Casca whose telephone number is (571) 272-7918. The

examiner can normally be reached on Monday through Friday from 9 to 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Lester Kincaid, can be reached at (571) 272-7922. The fax phone number for the

organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent
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